UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 07 2007

OFFICE OF PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Review of Label Amendment Request in Support of the Registration of B2E-07, Containing 2.8% (S)-Methoprene [Isopropyl (2E,4E,7S)-methoxy-3,7,11-trimethyl-2,4-dodecadienoate] As Its Active Ingredient.

Decision Number: 371781
DP Number: 337465
EPA Registration Number: 75318-7
Chemical Class: Biochemical
PC Code: 105402
Active Ingredient Tolerance Exemptions: 40 CFR 180.1033
MRID Number: 46970501

FROM: Angela L. Gonzales, Biologist
Biochemical Pesticides Branch
Biopesticides & Pollution Prevention Division (7511P)

TO: Mari Duggard, Regulatory Action Leader
Biochemical Pesticides Branch
Biopesticides & Pollution Prevention Division (7511P)

ACTION REQUESTED

B2E Biotech LLC requests a label amendment for B2E-07 (EPA Reg. No. 75318-7), an end-use product (EP) containing 2.8% (S)-Methoprene [Isopropyl (2E,4E,7S)-methoxy-3,7,11-trimethyl-2,4-dodecadienoate], an insect growth regulator (IGR), as its active ingredient. The label amendment is to extend the period of efficacy from 35 to 40 days and to change the water depth (at which the product is effective) from 6 to 24 inches. In support of the request, the registrant submitted an updated revised label and product performance data in MRID 46970501.

~~**THE FOLLOWING PAGES CONTAIN CONFIDENTIAL BUSINESS INFORMATION**~~

~~Contains Confidential Business Information~~

RECOMMENDATIONS AND CONCLUSIONS

1. The submitted product performance data are ACCEPTABLE.

MRID 46970501-ACCEPTABLE

1a. Based on the data submitted, B2E-07 is efficacious against *Ochlerotatus melanimon* mosquitoes in water depths up to 24 inches for up to **39** days. This period is one day shorter than that requested by the registrant; an explanation is provided below.

Note to RAL:

1. For future product performance submissions, raw data should be provided.

STUDY SUMMARIES

Product Performance (MRID 46970501)

*Note: A Data Evaluation Record (DER) was not created for this study. However, the study is described in detail below.

The efficacy of B2E-07 was evaluated against *Ochlerotatus melanimon* mosquitoes post-hatch in breeding sites at an application rate of 2.5 lb/acre. Test sites averaged 25 inches in water depth. The development of larvae in treated sites was monitored in each field site. When larvae developed to pupae, 30 pupae were collected (if available). After the collection of the first brood, in 4 of the 7 sites, 40 larvae were added to plots in floating sentinel cages and observed until they developed into pupae. Pupae were transported to a laboratory and allowed to complete development. Observations were recorded as the number of dead pupae in the cup, the number of dead adult mosquitoes on the water and the number of emerged adults that flew from the cup. For the control groups, concurrent pupal collections occurred from adjacent untreated sites. Environmental conditions were adequately described. Results were expressed as percent inhibition of emergence (%IE). Data were compared by Chi-square analysis at 0.05 levels between control and treatment groups. Results were statistically significant between control and treated groups. B2E-07 achieved 99.8% control from the first pupal collections taken 5 days post-treatment. Collections from the second irrigation in 4 of the 7 test sites resulted in 100% pupal mortality. The study author indicates that the product provided control for 42 days. However, the Agency calculates control from the time of test substance application to the time the pupae are removed/last observed from the treated area. Pupae were removed/last observed at 6 and 39-41 days post-treatment. The maximum control period based on the data submitted was 41 days, but only occurred once during the study, therefore the maximum validated control period is considered to be 39 days. Results of the study are presented in Table 1 below.

~~Contains Confidential Business Information~~

Table 1. Inhibition of Emergence of *Ochlerotatus melanimon* by B2E-07 treatment in Field Sites (August 17, 2006-September 29, 2006, Owens Valley, CA

Control		**B2E-10**			
Site	% % Inhibition Emergence (IE)	Site	Average water depth	Days post-treatment (length of control)	% Inhibition Emergence (IE)
Native pasture tailwater (1)	2.6	Native pasture tailwater (1)	30"	6	100
Native pasture tailwater (2)	4.8	Native pasture tailwater (2)	30"	6	100
Native pasture depression (3)	1.8	Native irrigated pasture depression (3)	24"	6 39*	99.0± 1.0* 100
Native pasture depression (4)	2.7	Native irrigated pasture depression (4)	30"	6	100
Native pasture depression (5)	4.9	Native irrigated pasture depression (5)	24"	Days not reported 41*	100 100
Native pasture depression (6)	0	Native irrigated pasture depression (6)	16"	Days not reported 39*	100 100
Native pasture depression (7)	0	Native irrigated pasture depression (7)	24"	7 39*	100 100

* Length of control after second collection of pupae occurred.

** Assuming >100 hatched larvae in the sites based on site history of high larval production

cc: A. Gonzales, M. Duggard, BPPD Subject File, IHAD/ARS
A. Gonzales, FT, PY1, 03/07/2007

13544

R141607

Chemical: S-Methoprene

PC Code: 105402
HED File Code: 41600 BPPD Other
Memo Date: 3/7/2007
File ID: DPD337475
Accession #: 000-00-9002

HED Records Reference Center
4/13/2007